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International Specialists in the Environment

M E M O R A N D U M

DATE: September 17, 1986

TO: File

FROM: Ruth Ann Jacquette (10)

SUBJECT: Illinois/R05-8410-01D/ILD0309

Chicago/Allied Chemical Corp.-PVS Chemicals, Inc.

ILD008133714

EPA Region 5 Records Ctr.



288547

Allied Chemical Corporation, Calumet Works is a RCRA regulated facility which operated from 1920 until 1981. The facility manufactured sulfuric acid, ammonium thiosulfate, aluminum chloride solution, and reduced chromium sulfate. Until 1978 chemically pure acids were also manufactured. This site was originally identified by the Illinois EPA in the form of a Preliminary Assessment submitted to the U.S. EPA.

The entire site consists of 90 acres. The majority of the site is vacant, where three old landfills are located. The remaining property is the active plant area. According to representatives from Allied Chemical Corp. the following materials were deposited into the landfills. In the landfill located west of Wolf Creek, small quantities of sodium silicates, sulfuric acid spent catalysts, asbestos ropes, broken carboys, and demolition debris were deposited (see Figure 2, area 8). The waste disposed into the two landfills located east of Wolf Creek consisted of scrap sulfur, residue from the production of HCL, and various demolition and manufacturing debris (see Figure 2, area 7). No records exists to document which materials or specific quantities that were disposed of in each landfill. Records also indicate drums of sulfuric acid were disposed of in a shallow trench located east of Wolf Creek. The landfills were no longer used sometime prior to 1977. In 1979 all areas were graded and six inches of sludge from the Metropolitan Sanitary District of Greater Chicago was applied only to the area east of Wolf Creek (see Figure 2, area 7).

A one time disposal of forty-one 55 gallon drums containing corrosive material from a dismantled tank occurred in February of 1981. The drums were shipped off-site to a permitted landfill.

The facility utilized a two compartment surface impoundment to neutralize corrosive waste water generated from process waste, plant maintenance and area wash downs. Waste water is first treated in a surface impoundment with sodium hydroxide to raise the ph to 8. The waste water is then pumped into the second impoundment where iron is precipitated out as iron hydroxide. After settling the supernate is discharged into the Metropolitan Sanitary District of Greater Chicago sewer system. The surface impoundments are lined with a sheet consisting of five layers of asphalt impregnated with burlap. They are monitored in order to maintain a two foot freeboard and an earthen dike surrounds the impoundments.

An NPDES permit authorizes the discharge of non-contact cooling waters uncontaminated by process wastes, into the Calumet River. An intake from the Calumet River provides the non-contact cooling waters. Acid leaks in the process equipment accounted for ph excursions which resulted in NPDES violations to outfalls to the Calumet River.

On November 11, 1980, Allied Chemical Corp. submitted a Part A permit to operate as a generator and a T/S/D facility. At this time Allied Chemical Corp. received Interim Status. On October 13, 1981, PVS Chemicals, Inc. purchased the operating portion of the site. (See Figure 2). Revisions to the Part A permit were submitted at this time.

PVS Chemicals, Inc. generates the identical wastes as Allied Chemical Corp. Although modification of operations were made. In the neutralization process, the ph of the corrosive waste water is raised prior to its discharge into the surface impoundments. The facility as it

operates now qualifies as an Elementary Neutralization Unit, and thus is a generator of hazardous waste only. In September of 1985 a closure plan was submitted by PVS Chemicals, Inc. to the Illinois EPA. The surface impoundments have not been officially closed.

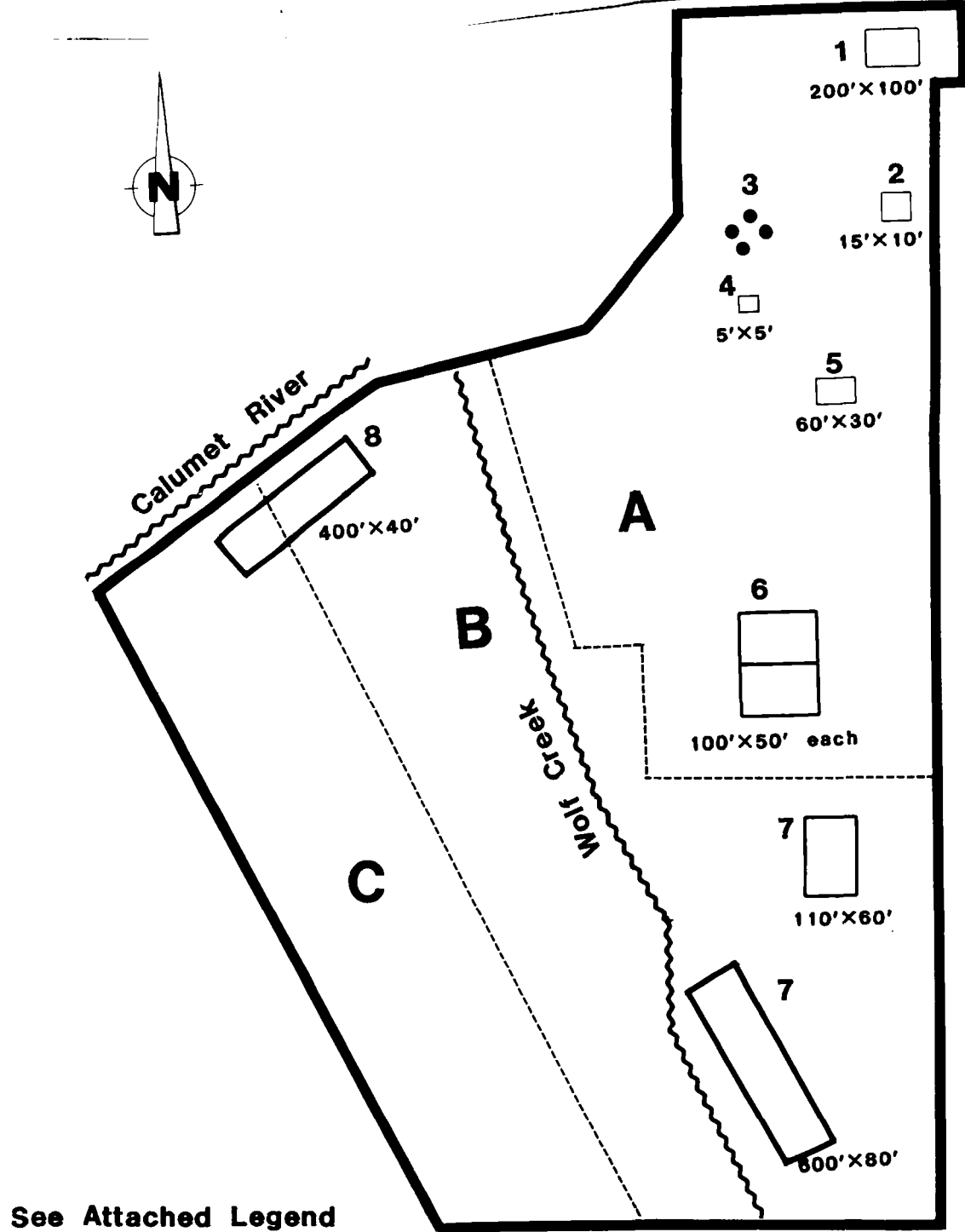
Residual material generated from the manufacturing processes are shipped off-site for disposal at permitted landfills. These wastes are classified as IEPA Special Wastes, both non-hazardous and hazardous (see Attachments A and B).

In 1984 Arrow Terminal Co. purchased a portion of the Allied Chemical, Corp. property which consisted of 500 feet east of the western border (see Figure 2). The remaining 20 acres is still owned by Allied Chemical, Corp.

On May 14, 1986, FIT members performed a survey of the Allied Chemical Corp./PVS Chemicals, Inc. site, and the following observations were made. The entire site appeared to be fence with a locked gate at the entrance. The active plant area consisted of many buildings and appeared to be paved.

The population within a three mile radius of this site obtains drinking water from Lake Michigan. Intakes for this system are at a distance greater than three miles from the site. The nearest surface water is the Calumet River located 500 feet west of the site. The river is not utilized as a source for drinking water but is used for recreational purposes such as fishing.

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TITLE		FIGURE #	
Site Map		2	
SITE		SCALE	
Allied Chemical Corp./PVS Chemical		NA	
CITY	STATE	TDD #	
Chicago	IL	R05-8410-01D	
SOURCE		DATE	9/17/86
R. Jacquette/File Information		REVISED	NA